

(12) UK Patent Application (19) GB (11) 2 202 745 (13) A
(43) Application published 5 Oct 1988

(21) Application No 8707558

(22) Date of filing 30 Mar 1987

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(51) INT CL⁴
A61F 2/52 2/78

(52) Domestic classification (Edition J):
A5R AP

(56) Documents cited
EP A2 0054197 WO A1 80/00121 US 4553550

(58) Field of search
A5R
A3V
Selected US specifications from IPC sub-classes
A41C A61F

(54) Attachment of external prosthesis

(57) An external prosthesis, (e.g. a mammary prosthesis) is removably attached to a user's body by means of a pad comprising an adhesive (e.g. Stomahesive (Registered Trade Mark)) wafer and one part of a releasable (e.g. Velcro (Registered Trade Mark) type) fastener. The prosthesis carries the other part of the fastener.

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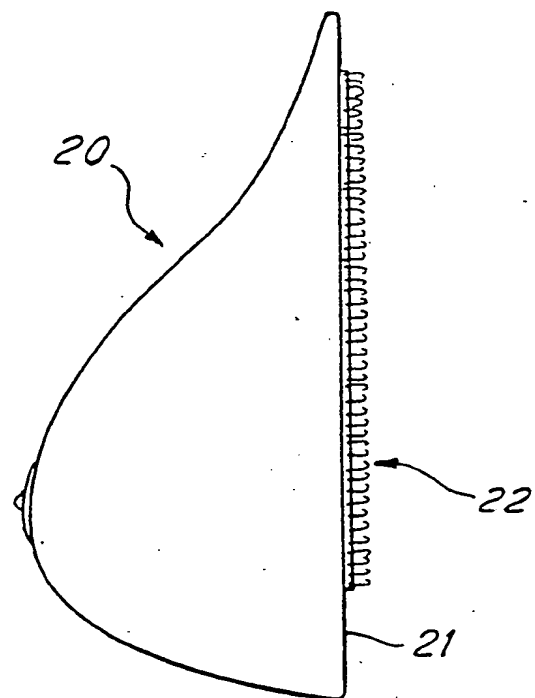
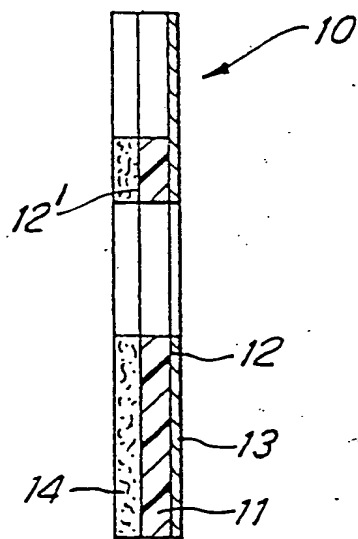
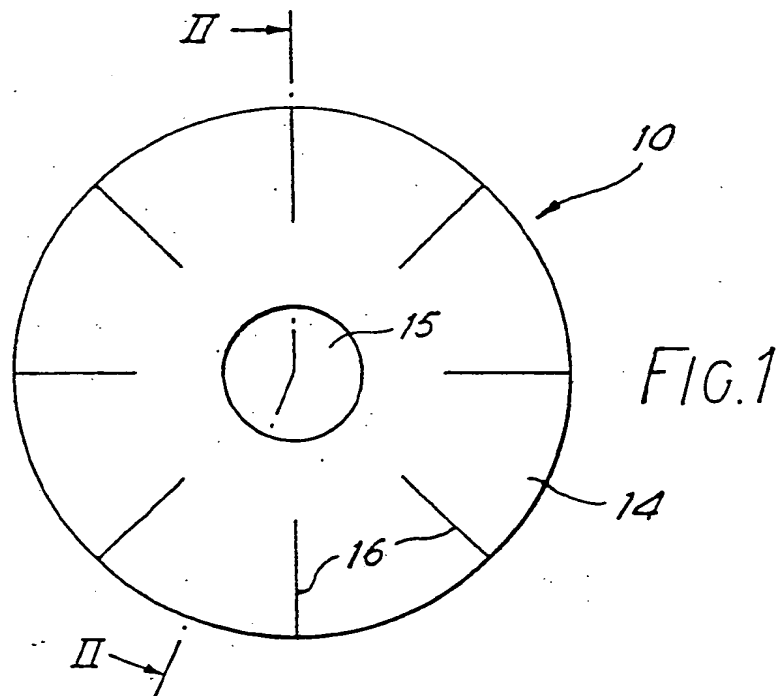


FIG. 2

FIG. 3

FIG. 5

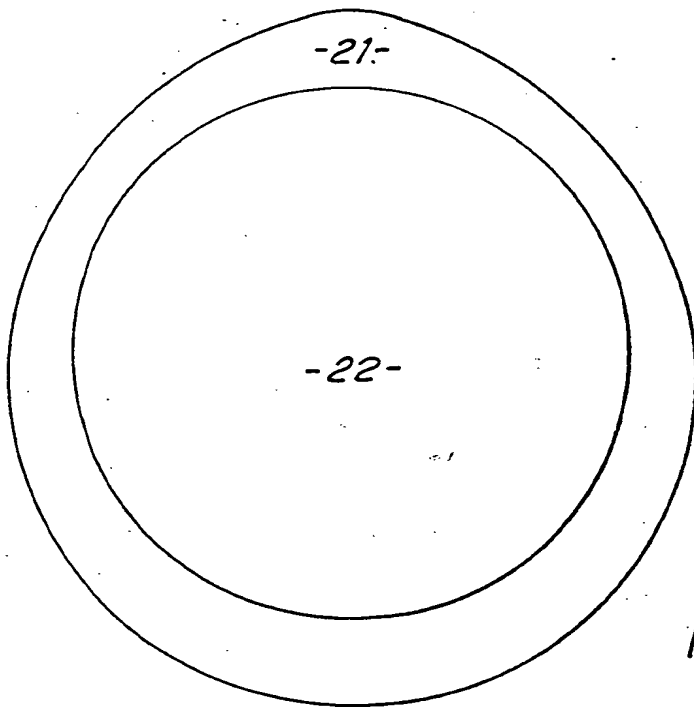
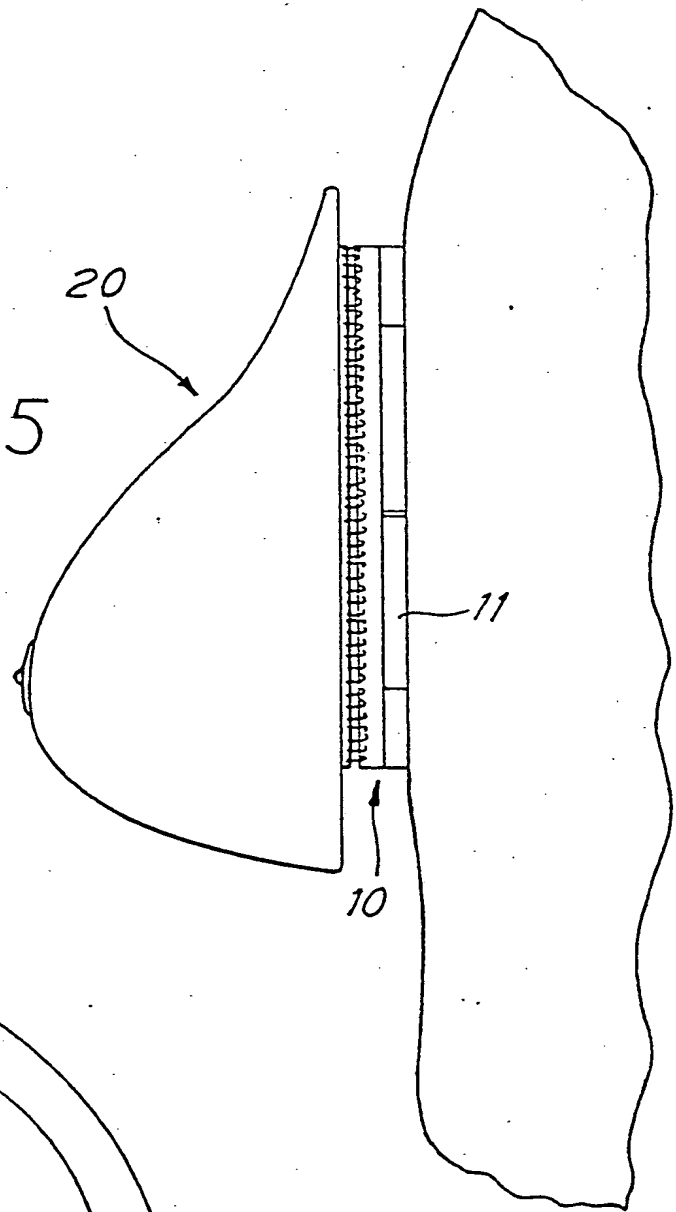


FIG. 4

ATTACHMENT OF EXTERNAL PROSTHESIS

This invention relates to the attachment of an external prosthesis, to the body of a user and in particular, though not exclusively, to attachment of mammary prosthesis to the chest of a user.

A mammary prosthesis is commonly used following a mastectomy. Considerable efforts have been made by the manufacturers of such prostheses to reproduce as nearly as possible the form, texture and dynamic characteristics of the human breast. A typical mammary prosthesis includes an outer skin of silicone internally filled with silicone liquid or gel. Conventionally, the prosthesis has been supported merely by fitting it into the cup of a brassiere. However, in this type of attachment there is no direct form of bond between the prosthesis and the adjacent chest, and relative movement is possible. This is disadvantageous from the point of view of the user's confidence.

The present invention provides a prosthesis arrangement for enabling removable attachment of an external prosthesis to the body of a user, including pad means having one surface adapted for adhesive attachment to the body of a user, and the other surface having means allowing removable attachment of an external prosthesis, and an external prosthesis having a surface including means adapted for attachment to said other surface of said pad means.

Preferably said external prosthesis is a mammary prosthesis.

Preferably, said pad means includes a wafer of plastic adhesive material for attachment to the body of a user. An example of a suitable wafer is that marketed by E.R. Squibb & Sons Inc. under the Registered Trade Mark "Stomahesive" (Registered Trade Mark No. 1,163,479).

Preferably said pad means includes a hooked complementary surface element of a removable type of surface-to-surface attachment

system. Surface-to-surface engagement over a substantial portion of the pad gives advantages not previously appreciated insofar as the degree of support between the prosthesis and the adjacent area of the user's body. An example of a suitable system is incorporated in the material marketed under the well known Registered Trade Mark "Velcro".

Preferably, the pad means is of generally circular shape having a central hole and a plurality of radial slits extending inwardly from the periphery.

The invention will now be described by way of a non-limiting example, reference being made to the accompanying drawings, in which:-

Figure 1 is a top plan view of the pad of an attachment according to an embodiment of the invention;

Figure 2 is a section view through the pad on lines II-II of Figure 1 and shown of enlarged thickness for clarity;

Figure 3 is a side view of a mammary prosthesis adapted for attachment to the pad of Figures 1 and 2;

Figure 4 is a rear view of the prosthesis of Figure 3, and

Figure 5 is a schematic view of the prosthesis when attached to the human body.

Referring to the Figures there is shown a system of removably attaching a prosthesis to the human body which includes a pad 10, having one surface adhesively bonded to the body and the other surface adapted for releasable surface-to-surface attachment over a substantial surface area to a complementary surface provided on the mammary prosthesis 20.

Referring now to Figures 1 and 2, the pad is generally circular in shape and made up of a "Stomahesive" wafer of plastic adhesive material 11. The wafer 11 is made of a plastic adhesive material comprising a blend of a water-soluble or water-swellable hydrocolloid and a water-insoluble, viscous elastic binder. The wafer 11 has one surface 12 covered by a release sheet 13 and which, in use, is bonded to the user's body, and the other surface, 12' is secured to a layer of felt 14. The pad includes a central aperture 15 and eight radial slits 16 which allow the pad

10 to flex with the user's body. Depending on the particular application, the slits and hole may not be necessary.

Referring to Figures 2 and 3 the prosthesis 20 itself is of conventional form, including a silicone skin filled with silicone fluid or gel. The prosthesis has a base surface 21 to which is attached a layer 22 of hooked material for releasable engagement with a complementary hooked or looped layer of felt 14 on the pad 10. The layers 22 and 14 are typically a Velcro (Registered Trade Mark) type fastening. Other suitable materials could be employed, for example, a material marketed by Minnesota Mining and Manufacturing Company and having moulded synthetic plastic headed projections which engage with like projections extending perpendicularly from a sheet of like material.

In use, the area of the chest where the prosthesis is to be attached is prepared. The release sheet 13 is removed and the pad 10 is bonded in the correct position on the user's body by the adhesive surface 12. The mammary prosthesis is then secured in the appropriate position using Velcro (Registered Trade Mark) fastening.

This arrangement gives greater confidence to the wearer because there is direct attachment between the prosthesis and the chest over a significant area of the prosthesis. This allows transfer of loads from the prosthesis to the chest of the user thus resembling the sensation of a real breast.

Also, due to the beneficial properties of the Stomahesive (Registered Trade Mark) material, the attachment enables the patient's skin to remain in the best condition after surgery and also assists in the healing process. The pad 10 may remain in place for a week or more before it needs to be changed.

Thus the embodiment disclosed herein allows an external mammary prosthesis to be attached to the user's body in such a manner as to reproduce as closely as possible the sensation of a natural breast insofar as transfer of load, movement etc. At the same time, the mammary prosthesis is removable for washing, etc.

CLAIMS

1. A prosthesis arrangement for enabling removable attachment of an external prosthesis to the body of a user, including pad means having one surface adapted for adhesive attachment to the body of a user, and the other surface having means allowing removable attachment of an external prosthesis, and an external prosthesis having a surface including means adapted for attachment to said other surface of said pad means.

2. A prosthesis arrangement as claimed in claim 1, wherein said external prosthesis is a mammary prosthesis.

3. A prosthesis arrangement as claimed in claim 1 or claim 2, wherein said pad means includes a wafer of plastic adhesive material for attachment to the body of the user.

4. A prosthesis arrangement as claimed in any one of the preceding claims, wherein said pad means and said prosthesis include surfaces adapted releasably to be attached to each other over at least a major portion of their surfaces.

5. A prosthesis arrangement as claimed in claim 4 wherein one of said pad means and said prosthesis include a gripping surface provided with a plurality of hooked gripping elements and the other of said surfaces is complementarily formed releasably to be gripped by said gripping surface.

6. A prosthesis arrangement as claimed in claim 5, wherein said prosthesis includes the hooked gripping elements.

7. A pad means of the prosthesis arrangement of any of the preceding claims.

8. A prosthesis arrangement substantially as hereinbefore described, with reference to and as illustrated in any one of the accompanying drawings.

9. A pad means substantially as hereinbefore described with reference to and as illustrated in any one of the accompanying drawings.

10. Any and all novel features and combinations and sub-combinations thereof disclosed herein.